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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/674,143 | 09/29/2003 | Grigoriy A. Trestman | 03-1-554 | 2494 |

7590 11/04/2004

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EXAMINER

VU, DAVID HUNG

| | |
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| ART UNIT | PAPER NUMBER |
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2828

DATE MAILED: 11/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/674,143

Applicant(s)

TRESTMAN ET AL.

Examiner

David Vu

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-20 is/are allowed.
- 6) ☒ Claim(s) 1,3-7 and 9-12 is/are rejected.
- 7) ☒ Claim(s) 2,8 and 13-16 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
2. The disclosure is objected to because of the following informalities: page 5, line 6, "contract" should have been ---contrast---.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1,4,6, and 9-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Eckert, U.S Pat Pub No 2004/0085032.

Eckert discloses the claimed invention including a three-phase rectifier circuit 101 operable to receive a three-phase alternating current (AC) voltage source and to provide a rectified output voltage; a high frequency filter capacitor 102 coupled to the rectifier circuit; and a high frequency inverter 104 coupled to the rectifier circuit and the high frequency filter capacitor, wherein the inverter is operable to power the at least one gas discharge lamp 106, see, for example, figures 1a-1b, paragraphs [0030] to [0032].

Regarding claim 4, paragraph [0016] does disclose the power factor is no less than 0.9.

Regarding claim 6, figure 1b clearly shows the claimed arrangements.

Regarding claim 9, paragraph [0032] discloses the frequency as claimed.

Regarding claim 10, the Eckert reference discloses substantially all limitations as discussed from the above. Paragraph [0032] also discloses the inverter operating frequency is greater than about 20 kHz.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3,7, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eckert in view of He et al, U.S. Pat No 6,043,997.

Eckert as discussed from the above, essentially discloses the claimed invention but fails to explicitly disclose a total harmonic distortion THD not greater than 33%. However, the claimed THD value, i.e., no greater than about 33%, is well known in the art as evidenced in the He et al reference (column 1, lines 57+, column 2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have reduced the line current THD to be not greater than 33%, thus improving power conversion performance.

Regarding claims 7 and 12, figure 5 of the He et al reference shows EMI filter including inductors 510,514,518.

7. Claims 5 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eckert.

Eckert as discussed from the above, essentially discloses the claimed invention but fails to explicitly disclose a ceramic filter. However, ceramic filter is very well known in the art. Thus it would have been obvious to one having ordinary skill in the art at the time the claimed invention was made to have utilized a ceramic filter so as to smooth out ripple voltages. Note that paragraphs [0031]-[0032] of the Eckert reference do disclose the claimed capacitor value, i.e., 0.1-1.0 microfarads.

Allowable Subject Matter

8. Claims 2,8, and 13-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
9. Claims 17-20 are allowed.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

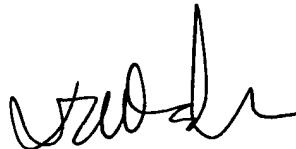
The patent by Williamson is cited as showing a ceramic filter employed in a power conversion circuit (column 14, lines 42+, column 15, lines 1-18).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Vu whose telephone number is (571) 272-1831. The examiner can normally be reached on M-F 8am-430pm.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2828

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'David Vu', with a stylized flourish at the end.

David Vu
Primary Examiner
Art Unit 2828

dv